

## Operating instructions

Nolta motor starter for electric-motor driven apparatuses, machines and equipment that can be moved from site to site.



Power plugs with integrated motor protection switch and temperature-compensated thermal trips.

CEE plugs 16A and 32A, optionally with or without phase-sequence indication and phase inverter.

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## Declaration of conformity

We, the manufacturer of the motor protection plug, which is described in detail in the operating instructions, hereby declare that this product complies with the following standards and guidelines.

EC Low Voltage Directive  
2006/95/EG

EC Directive on Electromagnetic Compatibility  
2004/108/EG

Harmonised standards, national standards and technical specifications:

- DIN EN 60999 / VDE 0609-1
- DIN EN 55014-1 / VDE 0875-14-1
- DIN EN 60947-4-1 / VDE 0660-102
- DIN EN 61000-6-1 / VDE 0839-6-1
- DIN EN 61000-6-2 / VDE 0839-6-2
- DIN EN 61000-6-3 / VDE 0839-6-3
- DIN EN 61000-6-4 / VDE 0839-6-4
- DIN EN 60529 / VDE 0470-1
- DIN EN 60695-1-10 / VDE 0471-1-10
- DIN EN 60695-1-11 / VDE 0471-1-11

Technical documentation is held by us and is available for inspection. Old equipment can be returned for disposal to NOLTA in Coelbe, Germany.

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## Start up

- Electrical connection and fault repairs must be only carried out by a qualified electrician.
- Before working on the equipment, the motor protection plug must always be disconnected from the power supply.
- The maximum fuse rating must be noted and taken heed of by the user (see table below).
- The nominal motor current  $I_{Nom}$  must be set within the tripping range.
- The motor must be connected in accordance with the wiring diagram.

Attention: Never use oil, grease or any kind of solvents. These substances have negative effects on the plastics rigidity.

### Maximum fuse ratings:

Motor-protection-switch		GV2-									
		M01 to M06	M07	M08	M10	M14	M16	M20	M21	M22	
Range of adjustment	A	0,1 to 1,6	2,5	4	6,3	10	14	18	23	25	
230/240 V	aM	A	★	★	★	★	★	★	★	80	80
	gL	A	★	★	★	★	★	★	★	100	100
400/415 V	aM	A	★	★	★	★	★	63	63	80	80
	gL	A	★	★	★	★	★	80	80	100	100
440 V	aM	A	★	★	★	50	50	50	50	63	63
	gL	A	★	★	★	63	63	63	63	80	80
500 V	aM	A	★	★	★	50	50	50	50	50	50
	gL	A	★	★	★	63	63	63	63	63	63
690 V	aM	A	★	16	25	32	32	40	40	40	40
	gL	A	★	20	32	40	40	50	50	50	50

★ > 100 kA.  
(1) in % of  $I_{cu}$

## Operation

Push button for manual On/Off switching

OFF= Rotary switch on "O"  
ON = Rotary switch on "I"

For integrated phase-sequence indicator and phase inverter.

- Red light = phase sequence incorrect
- The direction of rotation is changed by lightly pressing and turning the pole pins in the socket.

After a current overload, the motor safety switch cannot be switched on again until the bimetallic strip has cooled down. This may take a few minutes.

### Optional:

#### - Phase sequence monitoring

If the power input of the phases are reversed at installation (incorrect rotation), the phase indicator light will turn on. The electronic system will prevent the under voltage coil turning the motor protector on - preventing the motor from starting in the wrong direction.

Troubleshooting:

The phase sequence can be changed by using a screwdriver to switch the pole pins in the socket.

#### - Monitoring the phase sequence

The electronic system continuously monitors the 3 phases. In the case where an individual phase fails, the motor protector will immediately switch off. The switch must be then manually turned on again (which is only possible in the presence of L1, L2 and L3).

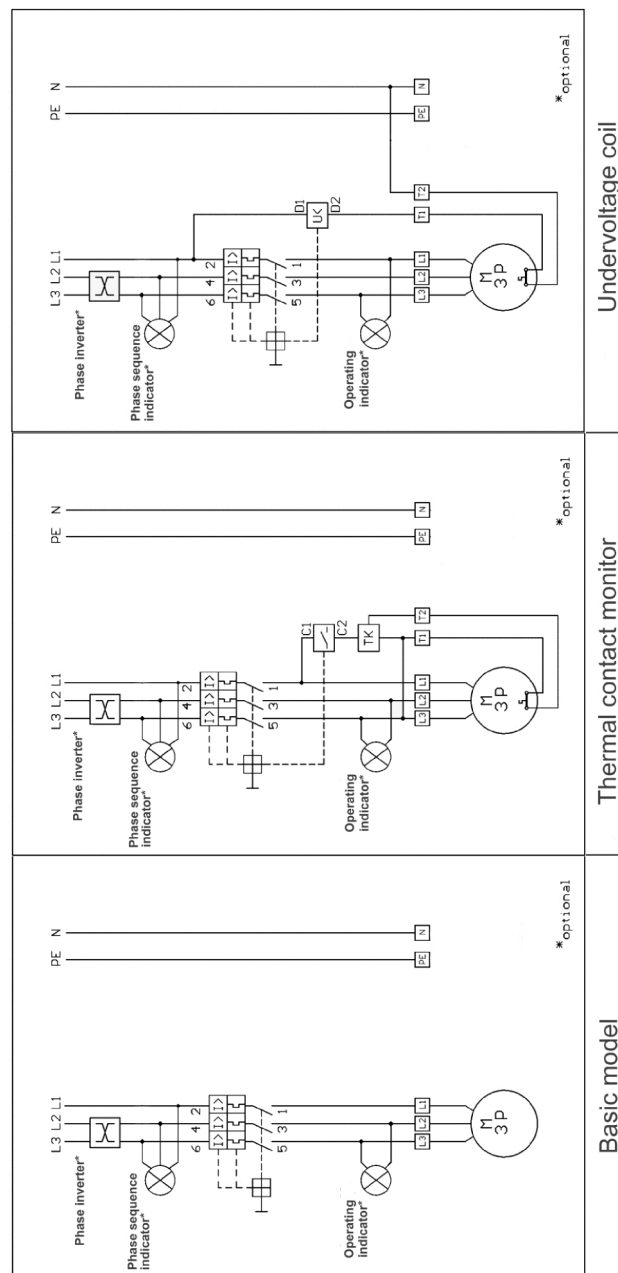
#### - Zero voltage release

If there is a power failure, the motor protector will immediately disconnect the under voltage coil. This cannot be turned on again until all the 3 phases are again present.

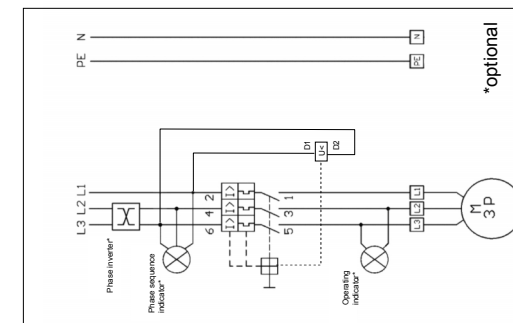
#### - Hours of operation timer 230 V

The operation of the timer is only possible when the motor protection switch is turned on.

## Wiring Diagram



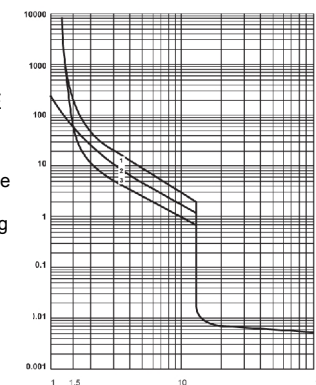
## Technical Data



Under voltage coil 500V without thermal contact connection.

Characteristics of the thermal-magnetic tripping of the GV2-ME

1. Symmetric 3-pole load from cold state
2. 2 pole load from cold state
3. Symmetric 3-pole load from operating temperature state.



Mechanical service life:	1 x 10 <sup>5</sup> (switching cycles)
Nominal operating voltage:	230–690 V AC*
Nominal operating current:	min. 0,1 A max. 32,0 A
Perm. power frequency:	50 - 500 Hz
Temperature range:	- 25...+ 50 °C
Magn. tripping:	Yes
Temp. compensation:	Yes
Trip time:	See characteristics
Max. back up fuse rating:	See table
Housing:	Polycarbonate
Degree of protection:	IP 44
Cable entry:	M 32 x 1,5
Clamping range:	11 - 21 mm
Cross-sectional area of main conductor	
Single core	1 x 1...4,0 mm <sup>2</sup> 2 x 1...4,0 mm <sup>2</sup>
Fine standard	1 x 1...2,5 mm <sup>2</sup> 2 x 1...2,5 mm <sup>2</sup>

\*Only applies to the motor protection switch. The nominal voltage is established by the plug attachment and the phase sequence unit